

12WR400

LOW FREQUENCY TRANSDUCER
WR Series

KEY FEATURES

- High power handling: 800 W program power
- 3" copper wire voice coil
- High sensitivity: 97 dB (1W / 1m)
- FEA optimized ceramic magnetic circuit
- Waterproof cone treatment for both sides of the cone
- Extended controlled displacement: X_{max} ± 6,3 mm
- 30 mm peak-to-peak excursion before damage
- Low harmonic distortion and linear response
- Wide range of applications of low and mid-low frequencies





TECHNICAL SPECIFICATIONS

Nominal diameter	300 mm	12 in
Rated impedance		8 Ω
Minimum impedance		6,5 Ω
Power capacity ¹		400 W _{AES}
Program power ²		800 W
Sensitivity	97 dB 1W /	/ 1m @ Z _N
Frequency range	45	- 5.000 Hz
Recom. enclosure vol.	30 / 100 I	1 / 3,5 ft ³
Voice coil diameter	76,2 mm	3 in
BI factor		18 N/A
Moving mass		0,063 kg
Voice coil length		16 mm
Air gap height		8 mm
X _{damage} (peak to peak)		30 mm

THIELE-SMALL PARAMETERS 3

Posonant fraguancy f	42 Hz
Resonant frequency, f _s	42 NZ
D.C. Voice coil resistance, R _e	5,6 Ω
Mechanical Quality Factor, Q _{ms}	5,6
Electrical Quality Factor, Qes	0,28
Total Quality Factor, Q _{ts}	0,27
Equivalent Air Volume to C _{ms} , V _{as}	91 I
Mechanical Compliance, C _{ms}	228 μm / N
Mechanical Resistance, R _{ms}	3 kg / s
Efficiency, η ₀	2,2 %
Effective Surface Area, S _d	$0,053 \text{ m}^2$
Maximum Displacement, X _{max} ⁴	6,3 mm
Displacement Volume, V _d	334 cm ³
Voice Coil Inductance, Le	1 mH

Notes

¹ The power capaticty is determined according to AES2-1984 (r2003) standard.

² Program power is defined as power capacity + 3 dB.

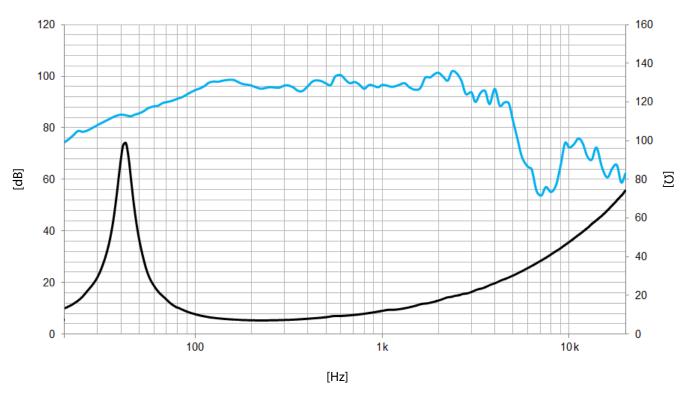
³ T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $^{^4}$ The X_{max} is calculated as (L_{vc} - H_{ag})/2 + (H_{ag}/3,5), where L_{vc} is the voice coil length and H_{ag} is the air gap height.



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Note: On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

MOUNTING INFORMATION

Overall diameter	312 mm	12,3 in
Bolt circle diameter	294,5 mm	11,6 in
Baffle cutout diameter:		
- Front mount	278 mm	10,9 in
Depth	131 mm	5,2 in
Net weight	5,5 kg	12,1 lb
Shipping weight	6 kg	13,2 lb

DIMENSION DRAWING

